SEQUENCE LISTING

<110> University of Bristol

<120> Methods of Inducing Cell Death

<130> P100147PCT

<140> PCT/GB00/02693

<141> 2000-07-13

<160> 8

<170> PatentIn Ver. 2.1

<210> 1

<211> 365

<212> PRT

<213> Human papillomavirus

<400> 1

Met Glu Thr Leu Cys Gln Arg Leu Asn Val Cys Gln Asp Lys Ile Leu 1 5 10 15

Thr His Tyr Glu Asn Asp Ser Thr Asp Leu Arg Asp His Ile Asp Tyr
20 25 30

Trp Lys His Met Arg Leu Glu Cys Ala Ile Tyr Tyr Lys Ala Arg Glu 35 40 45

Met Gly Phe Lys His Ile Asn His Gln Val Val Pro Thr Leu Ala Val 50 55 60

Ser Lys Asn Lys Ala Leu Gln Ala Ile Glu Leu Gln Leu Thr Leu Glu 65 70 75 80

Thr Ile Tyr Asn Ser Gln Tyr Ser Asn Glu Lys Trp Thr Leu Gln Asp
85 90 95

Val Ser Leu Glu Val Tyr Leu Thr Ala Pro Thr Gly Cys Ile Lys Lys
100 105 110

His Gly Tyr Thr Val Glu Val Gln Phe Asp Gly Asp Ile Cys Asn Thr 115 120 125

Met His Tyr Thr Asn Trp Thr His Ile Tyr Ile Cys Glu Glu Ala Ser 130 135 140

Val Thr Val Val Glu Gly Gln Val Asp Tyr Tyr Gly Leu Tyr Tyr Val 145 150 155 160

His Glu Gly Ile Arg Thr Tyr Phe Val Gln Phe Lys Asp Asp Ala Glu 165 170 175

Lys Tyr Ser Lys Asn Lys Val Trp Glu Val His Ala Gly Gly Gln Val
180 185 190

Ile Leu Cys Pro Thr Ser Val Phe Ser Ser Asn Glu Val Ser Ser Pro 195 200 205

Glu Ile Ile Arg Gln His Leu Ala Asn His Pro Ala Ala Thr His Thr 210 215 220

Lys Ala Val Ala Leu Gly Thr Glu Glu Thr Gln Thr Thr Ile Gln Arg 225 230 235 240

Pro Arg Ser Glu Pro Asp Thr Gly Asn Pro Cys His Thr Thr Lys Leu 245 250 255

Leu His Arg Asp Ser Val Asp Ser Ala Pro Ile Leu Thr Ala Phe Asn 260 265 270

Ser Ser His Lys Gly Arg Ile Asn Cys Asn Ser Asn Thr Thr Pro Ile 275 280 285

Val His Leu Lys Gly Asp Ala Asn Thr Leu Lys Cys Leu Arg Tyr Arg 290 295 300

Phe Lys Lys His Cys Thr Leu Tyr Thr Ala Val Ser Ser Thr Trp His 305 310 315 320

Trp Thr Gly His Asn Val Lys His Lys Ser Ala Ile Val Thr Leu Thr 325 330 335

Tyr Asp Ser Glu Trp Gln Arg Asp Gln Phe Leu Ser Gln Val Lys Ile 340 345 350

Pro Lys Thr Ile Thr Val Ser Thr Gly Phe Met Ser Ile 355 360 365

<210> 2

<211> 1098

<212> DNA

<213> Human papillomavirus

```
<400> 2
 atggagactc tttgccaacg tttaaatgtg tgtcaggaca aaatactaac acattatgaa 60
 aatgatagta cagacctacg tgaccatata gactattgga aacacatgcg cctagaatgt 120
 gctatttatt acaaggccag agaaatggga tttaaacata ttaaccacca agtggtgcca 180
acactggctg tatcaaagaa taaagcatta caagcaattg aactgcaact aacgttagaa 240
 acaatatata actcacaata tagtaatgaa aagtggacat tacaagacgt tagccttgaa 300
 gtgtatttaa ctgcaccaac aggatgtata aaaaaacatg gatatacagt ggaagtgcag 360
 tttgatggag acatatgcaa tacaatgcat tatacaaact ggacacatat atatatttgt 420
 gaagaagcat cagtaactgt ggtagagggt caagttgact attatggttt atattatgtt 480
 catgaaggaa tacgaacata ttttgtgcag tttaaagatg atgcagaaaa atatagtaaa 540
 aataaagtat gggaagttca tgcgggtggt caggtaatat tatgtcctac atctgtgttt 600
 agcagcaacg aagtateete teetgaaatt attaggeage aettggeeaa eeaceeegee 660
 gegacecata ecaaageegt egeettggge acegaagaaa cacagaegae tatecagega 720
 ccaagatcag agccagacac cggaaacccc tgccacacca ctaagttgtt gcacagagac 780
 tcagtggaca gtgctccaat cctcactgca tttaacagct cacacaaagg acggattaac 840
 tgtaatagta acactacacc catagtacat ttaaaaggtg atgctaatac tttaaaatgt 900
 ttaagatata gatttaaaaa gcattgtaca ttgtatactg cagtgtcgtc tacatggcat 960
 tggacaggac ataatgtaaa acataaaagt gcaattgtta cacttacata tgatagtgaa 1020
 tggcaacgtg accaattttt gtctcaagtt aaaataccaa aaactattac agtgtctact 1080
 ggatttatgt ctatatga
 <210> 3
 <211> 365
 <212> PRT
 <213> Human papillomavirus
 <400> 3
 Met Glu Thr Leu Cys Gln Arg Leu Asn Val Cys Gln Asp Lys Ile Leu
                                                           15
                   5
                                      10
   1
 Thr His Tyr Glu Asn Asp Ser Thr Asp Leu Arg Asp His Ile Asp Tyr
                                                       30
              20
                                  25
 Trp Lys His Met Arg Leu Glu Cys Ala Ile Tyr Tyr Lys Ala Arg Glu
                                                   45
                              40
          35
 Met Gly Phe Lys His Ile Asn His Gln Val Val Pro Thr Leu Ala Val
                                               60
                          55
      50
 Ser Lys Asn Lys Ala Leu Gln Ala Ile Glu Leu Gln Leu Thr Leu Glu
                                                               80
                                          75
                      70
  65
 Thr Ile Tyr Asn Ser Gln Tyr Ser Asn Glu Lys Trp Thr Leu Gln Asp
                                                           95
                  85
                                       90
```

1098

Val Ser Leu Glu Val Tyr Leu Thr Ala Pro Thr Gly Cys Ile Lys Lys

100 105 110

His Gly Tyr Thr Val Glu Val Gln Phe Asp Gly Asp Ile Cys Asn Thr 115 120 125

Met His Tyr Thr Asn Trp Thr His Ile Tyr Ile Cys Glu Glu Ala Ser 130 135 140

Val Thr Val Val Glu Gly Gln Val Asp Tyr Tyr Gly Leu Tyr Tyr Val
145 150 155 160

His Glu Gly Ile Arg Thr Tyr Phe Val Gln Phe Lys Asp Asp Ala Glu 165 170 175

Lys Tyr Ser Lys Asn Lys Val Trp Glu Val His Ala Gly Gly Gln Val 180 185 190

Ile Leu Cys Pro Thr Ser Val Phe Ser Ser Asn Glu Val Ser Ser Pro 195 200 205

Glu Ile Ile Arg Gln His Leu Ala Asn His Pro Ala Ala Thr His Thr 210 215 220

Lys Ala Val Ala Leu Gly Thr Glu Glu Thr Gln Thr Thr Ile Gln Arg 225 230 235 240

Pro Arg Ser Glu Pro Asp Thr Gly Asn Pro Cys His Thr Thr Lys Leu 245 250 255

Leu His Arg Asp Ser Val Asp Ser Ala Pro Ile Leu Thr Ala Phe Asn 260 265 270

Ser Ser His Lys Gly Arg Ile Asn Cys Asn Ser Asn Thr Thr Pro Ile 275 280 285

Val His Leu Lys Gly Asp Ala Ala Thr Leu Ala Cys Leu Arg Tyr Ala 290 295 300

Phe Lys Lys His Cys Thr Leu Tyr Thr Ala Val Ser Ser Thr Trp His 305 310 315

Trp Thr Gly His Asn Val Lys His Lys Ser Ala Ile Val Thr Leu Thr 325 330 335

Tyr Asp Ser Glu Trp Gln Arg Asp Gln Phe Leu Ser Gln Val Lys Ile 340 345 350

Pro Lys Thr Ile Thr Val Ser Thr Gly Phe Met Ser Ile

<210> 4 <211> 1098

1098

```
<212> DNA
<213> Human papillomavirus
<400> 4
atggagactc tttgccaacg tttaaatgtg tgtcaggaca aaatactaac acattatgaa 60
aatqatagta cagacctacg tgaccatata gactattgga aacacatgcg cctagaatgt 120
qctatttatt acaaggccag agaaatggga tttaaacata ttaaccacca agtggtgcca 180
acactggctg tatcaaagaa taaagcatta caagcaattg aactgcaact aacgttagaa 240
acaatatata actcacaata tagtaatgaa aagtggacat tacaagacgt tagccttgaa 300
qtqtatttaa ctgcaccaac aggatgtata aaaaaacatg gatatacagt ggaagtgcag 360
tttgatggag acatatgcaa tacaatgcat tatacaaact ggacacatat atatatttgt 420
qaaqaaqcat cagtaactgt ggtagagggt caagttgact attatggttt atattatgtt 480
catgaaggaa tacgaacata ttttgtgcag tttaaagatg atgcagaaaa atatagtaaa 540
aataaagtat qqqaagttca tqcqqqtqqt caggtaatat tatgtcctac atctgtgttt 600
agcagcaacq aagtateete teetgaaatt attaggeage aettggeeaa eeaceeegee 660
qcqacccata ccaaagccgt cgccttgggc accgaagaaa cacagacgac tatccagcga 720
ccaagatcag agccagacac cggaaacccc tgccacacca ctaagttgtt gcacagagac 780
tcagtggaca gtgctccaat cctcactgca tttaacagct cacacaaagg acggattaac 840
tqtaataqta acactacacc cataqtacat ttaaaaqqtq atqctqctac tttagcatqt 900
ttaaqatatq catttaaaaa qcattgtaca ttgtatactg cagtgtcgtc tacatggcat 960
tggacaggac ataatgtaaa acataaaagt gcaattgtta cacttacata tgatagtgaa 1020
tggcaacgtg accaattttt gtctcaagtt aaaataccaa aaactattac agtgtctact 1080
ggatttatgt ctatatga
<210> 5
<211> 87
<212> PRT
<213> Human papillomavirus
<400> 5
Met Asn Cys Asn Ser Asn Thr Thr Pro Ile Val His Leu Lys Gly Asp
                  5
                                     10
                                                          15
  1
Ala Asn Thr Leu Lys Cys Leu Arg Tyr Arg Phe Lys Lys His Cys Thr
             20
                                                      30
Leu Tyr Thr Ala Val Ser Ser Thr Trp His Trp Thr Gly His Asn Val
         35
                             40
                                                 45
Lys His Lys Ser Ala Ile Val Thr Leu Thr Tyr Asp Ser Glu Trp Gln
     50
                         55
```

Arg Asp Gln Phe Leu Ser Gln Val Lys Ile Pro Lys Thr Ile Thr Val 70 65 Ser Thr Gly Phe Met Ser Ile 85 <21.0> 6 <211> 264 <212> DNA <213> Human papillomavirus <400> 6 atgaactgta atagtaacac tacacccata gtacatttaa aaggtgatgc taatacttta 60 aaatgtttaa gatatagatt taaaaagcat tgtacattgt atactgcagt gtcgtctaca 120 tggcattgga caggacataa tgtaaaacat aaaagtgcaa ttgttacact tacatatgat 180 agtgaatggc aacgtgacca atttttgtct caagttaaaa taccaaaaac tattacagtg 240 tctactggat ttatgtctat atga <210> 7 <211> 87 <212> PRT <213> Human papillomavirus <400> 7 Met Asn Cys Asn Ser Asn Thr Thr Pro Ile Val His Leu Lys Gly Asp 10 15 5 Ala Ala Thr Leu Ala Cys Leu Arg Tyr Ala Phe Lys Lys His Cys Thr 25 20 Leu Tyr Thr Ala Val Ser Ser Thr Trp His Trp Thr Gly His Asn Val 45 40 Lys His Lys Ser Ala Ile Val Thr Leu Thr Tyr Asp Ser Glu Trp Gln 55 Arg Asp Gln Phe Leu Ser Gln Val Lys Ile Pro Lys Thr Ile Thr Val

264

80

Ser Thr Gly Phe Met Ser Ile

85

70

75

```
<210> 8
<211> 264
<212> DNA
<213> Human papillomavirus

<400> 8
atgaactgta atagtaacac tacacccata gtacatttaa aaggtgatgc tgctacttta 60
gcatgtttaa gatatgcatt taaaaagcat tgtacattgt atactgcagt gtcgtctaca 120
tggcattgga caggacataa tgtaaaacat aaaagtgcaa ttgttacact tacatatgat 180
agtgaatggc aacgtgacca attttgtct caagttaaaa taccaaaaac tattacagtg 240
tctactggat ttatgtctat atga
```